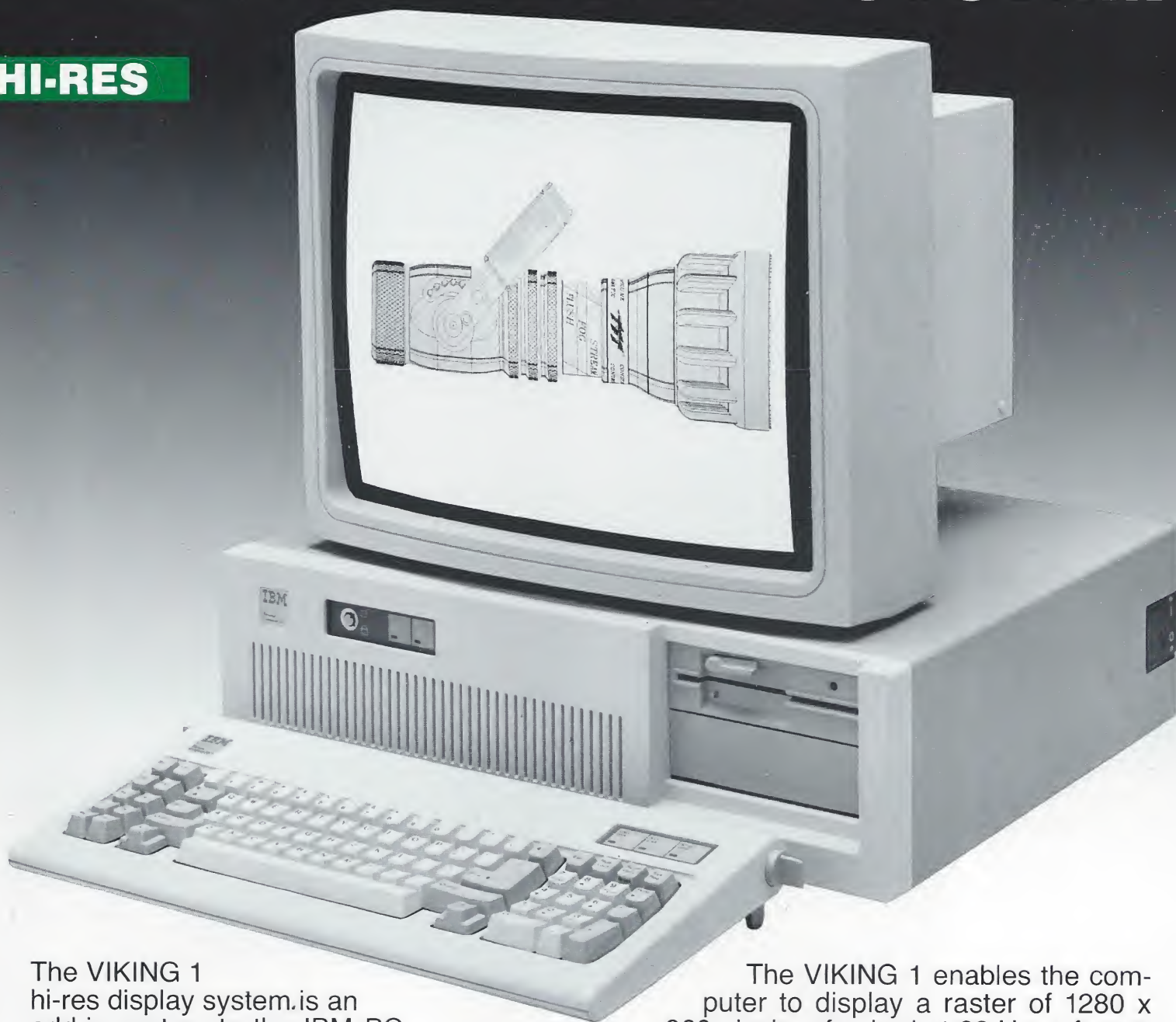# VIKING 1

AutoCAD DISPLAY SYSTEM

HI-RES

The VIKING 1 hi-res display system is an add-in system to the IBM PC XT/AT/RT computers and other similar computers. It includes a compact 19″ hi-res monochrome monitor which is connected to an extremely powerful controller board occupying a single slot within the computer chassis. The monitor's appearance is compatible with the IBM PC family, and was specifically designed to sit directly on the PC.

The VIKING 1 enables the computer to display a raster of 1280 x 960 pixels refreshed at 66 Hz, a format which has previously been available only on very complex and expensive engineering workstations. Using the extremely powerful Hitachi HD63484 ACRTC controller chip, its high speed graphics control functions enable it to combine efficient character mode operations with sophisticated graphics functions within the same programs.

VIKING 1 SPECIFICATIONS

The VIKING 1 graphics controller is an interface card for the IBM PC, AT and compatible computers. At the heart of the VIKING 1 is the Hitachi HD63484 ACRTC (Advanced Cathode Ray Tube Controller).
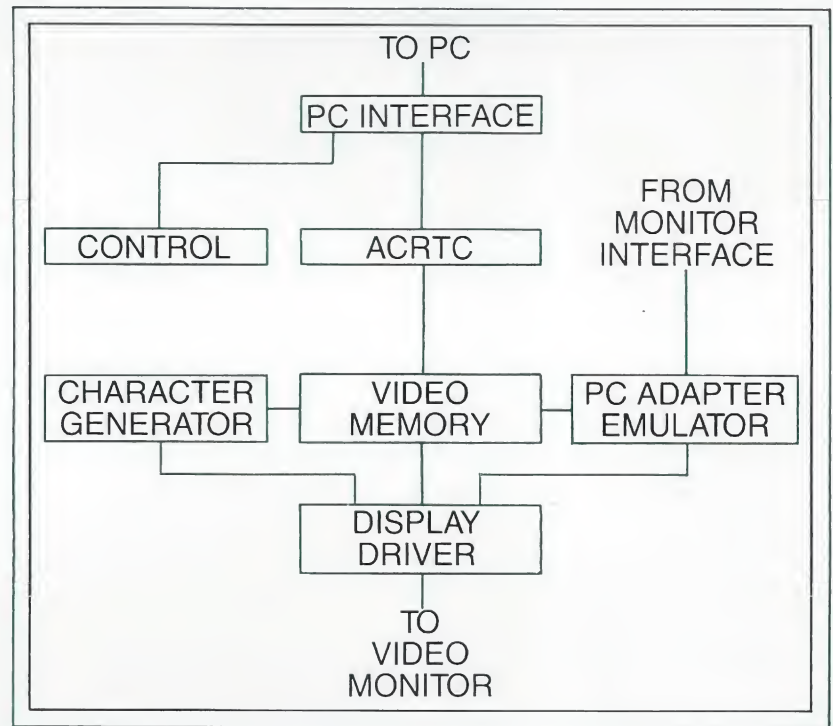
GENERAL

2 Megabit video memory, of which 1280 x 960 bits are displayed.

The PC interface includes DMA support and address decoding on the PC bus.

The hardware character generator "option" supports 60 lines of text with 128 characters per line, which can be intermixed with the bit mapped graphics on the screen.

The controller supports the usage of standard PC programs, for the IBM CGA, IBM Monochrome Adapter, or Hercules Adapter, without the need of a second monitor.

The software interface involves accessing only the Hitachi ACRTC and the Control Register. Both are accessed in the I/O space of the PC.

BLOCK DIAGRAM

CONTROLLER

Bit Mapped Memory	2 Megabits (2048 x 1024)
Character Memory	Up to 128K
DMA Access	

HARDWARE FUNCTIONS

Bit Blit	Paint
Circle	Draw Line
Rectangle	Polyline
Polygon	Ellipse
Ellipse Arc	Copy
Clipping	Fill
Pan	Zoom

MONITOR

Raster Size	11" x 14"
Horizontal pixels	1280
Horizontal frequency	66KHz (Non Interlaced)
Vertical pixels	960
Vertical frequency	66Hz (Flicker Free!)
Pixel frequency	110 MHz
Phosphor	P-4 (White)

CRT size (diag)	19.6"
Monitor width	17.8"
Monitor height	14.5"
Monitor depth	15.0"
Monitor weight	36 lbs
Power consumption	60 watts